



Demountable flood defence system Freudenberg on the River Main



Because of the relatively low-lying location of the town of Freudenberg on the river Main the urban areas adjacent to the river were statistically speaking already affected approx. every five years by the Main flooding. In order to be able to protect the suburbs, old town and new town from this, a demountable flood defence system 1.25 km long with an overall barrier surface area of 2,150 m² and



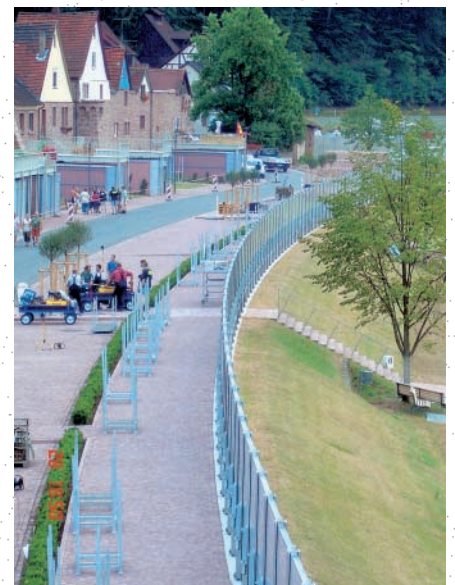
maximum height of 3.5 m was built by 2006. The top side of the promenade walkway to the old town is on the HQ10-level. In order to quickly and easily raise this low defence level by approx. 70 cm to a HQ25 likelihood of occurrence, a fixed bollard construction 380 m in length was built. Dam beams can quickly and easily be piled up between the bollards.



In rare cases the aforementioned defence height is not sufficient. In these cases the bollards can be raised by 1.70 m using post supports.



The demountable barrier can then be gradually strengthened according to the anticipated flood level by inserting the appropriate number of dam beams up to the target level of defence, that extends 0.5 m above the HQ100-level.



Client: Town Freudenberg on the Main
Authorising Body: Gewässerdirektion Neckar/Künzelsau
Protection Height: HQ100 + 0,5 m Freeboard

Design Criteria: Hydrostatic Water Pressure + 20 kN/m²
Heights: 0,9 m up to 3,5 m
Length of the defence line/Area: 1,25 km/2.150 m²